

GLOSSARY

Let us agree on the meaning of the words, an ingredient for...

- mutual understanding
- aligning the project team
- establishing clear expectations
- reducing divisiveness caused by multiple interpretations

If you can't explain it simply, you don't understand it well enough.

-Albert Einstein

A

Access Control	<p>The right of owners of abutting land have access to a highway that is either full, partial or modified control. Two methods of Managing access control:</p> <ol style="list-style-type: none"> 1) Managed access control M/A this is a prescribed method of regulating access where incorporated Cities or Towns have access permitting authority and outside of those limits WSDOT has permitting authority. 2) Limited Access (L/A) - this method of regulating access
Active Transportation	<p>A means of getting around that is powered by human energy, primarily walking and bicycling.</p> <p>https://www.transportation.gov/mission/health/active-transportation</p>
American Disabilities Act (ADA)	<p>An abbreviation for the Americans with Disabilities Act of 1990. The ADA is a civil rights law that identifies and prohibits discrimination based on disability. Title II of the ADA requires public entities to design new pedestrian facilities or alter existing pedestrian facilities to be accessible to and usable by people with disabilities. (ADA term)</p>
ADT	<p>The average 24 hour volume, being the total volume during a stated period divided by the number of days in that period. Normally, this would be periodic daily traffic volumes over several days, not adjusted for days of the week or seasons of the year.</p>
ATDM	<p>Active Traffic Demand Management - Strategy used by the WSDOT to reduce collisions associated with congestion and blocked lanes. The system uses overhead lane signs to provide advance notice of traffic conditions.</p>
ATMS	<p>Active traffic management (ATM) uses a combination of congestion management techniques to dynamically manage traffic based on current and near-term expected conditions. Its goal is to maximize the efficiency of a road and the effectiveness of several strategies to delay the onset and intensity of traffic congestion. ATM strategies include: -Variable Speed Limits. -Temporary Shoulder Use. -Queue Warning. -Dynamic Merge Control. -Adaptive Ramp Flow Control. -Dynamic Truck Restrictions. -Dynamic Rerouting & Traveler Information.</p>

B

Baseline Estimate	<p>Sets the basis for funding and for measuring project performance. Project baseline cost estimates are typically set during programming or early in preliminary design and reflect the total estimated cost of the project.</p>
Base Cost Estimate	<p>The base cost represents the “reasonably expected” cost if the project materializes as planned, including PE, RW, and CN costs. The base cost estimate is unbiased and neutral; it is not optimistic or conservative. It does not anticipate any expense due to risk events, but does include the WSDOT standard construction contingency. Base costs reported to program management shall be in current-year dollars (uninflated estimate).</p> <p style="text-align: right;"><i>See WSDOT Plans Prep Manual 800.03 (2).</i></p>
Basis Of Estimate <i>(estimate basis and assumptions)</i>	<p>Provides information at the time the estimate is completed. This allows project “knowns” as well as “unknowns” to be clearly identified. Documents and tracks changes to the estimate over time. This is important because multiple estimators may be involved on the project; some projects take years to develop and estimates must be completed multiple times.</p> <p style="text-align: right;"><i>Source: NCHRP Report Number 574</i></p>

Business Access & Transit Lanes (BAT Lanes)	BAT lanes help buses and other vehicles move more efficiently through traffic and provide better access to businesses. These curb lanes, located along the route, are expressly reserved for turning vehicles and buses.
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C

CEVP® (also see CRA)	<p>Cost Estimate Validation Process - an intense workshop where a team of top engineers and risk managers examine transportation project costs and schedules. The team is comprised of subject matter experts from private firms and public agencies. The team reviews project details with WSDOT engineers. Many participants have extensive first-hand experience with large project programming and delivery.</p> <p>The workshop team uses systematic project review and risk assessment methods to evaluate the quality of information. The team identifies and describes risks. The team estimates the impacts of risks in terms of cost, and schedule.</p> <p>The process offers the opportunity to reduce the number or impact of risks and promote activities to improve cost and schedule forecasting. The process is for projects over \$100M.</p>
CIPP	Capital Improvement and Preservation Program
Construction Contingency	Funds authorized at the time of contract award to be expended on unexpected, urgent, minor needs due to uncertainties in quantities, unit costs, and minor risk events that occur during construction. At WSDOT this is the 4% Change Order Contingency – C.O.C.
Contingency	<p>An amount added to an estimate to allow for items, conditions, or events for which the state, occurrence, or effect is uncertain and that experience shows will likely result, in aggregate, in additional costs. Typically estimated using statistical analysis or judgment based on past asset or project experience.</p> <p><i>Source: Association for the Advancement of Cost Engineering International (AACEI)</i></p>
CPDM	Capital Program Development and Management Division
CRA (see CEVP)	Cost Risk Assessment – a workshop following the same methodology as CEVP® but use of extensive external subject matter expertise is somewhat relaxed. CRA workshops are for projects between \$25M and \$100M.

D

Deliverable	A unique and verifiable product, result or capability to perform a service that must be produced to complete a process, phase, or project. See also product, result, and service. [output/input].
Deliverables Expectations Matrix	A list of typical deliverables required at different points through project development.
Design Phase	The effort (budget/cost) of taking a project through the planning, scoping, and design phases. Planning and scoping typically have separate budgets encompassed under Design or Preliminary Engineering (PE). The terms “Design” or “Design Phase” are interchangeable.
Design Bid Build (DBB)	The project delivery method where design and construction are sequential steps in the project development process (23 CFR 636.103).
Design Build (DB)	An agreement that provides for design and construction of improvements by a consultant/contractor team. The term encompasses design-build-maintain, design-build-operate, design-build-finance, and other contracts that include services in addition to design and construction. Franchise and concession agreements are included in the term if they provide for the franchisee or concessionaire to develop the project that is the subject of the agreement (23 CFR 636.103).
Directional Design Hour Volume (DDHV)	The traffic volume for the design hour in the peak direction of flow, in vehicles per hour. For example, if during the design hour, 60% of the vehicles traveled eastbound and 40% traveled westbound, then the DDHV for the eastbound direction would be the DHV x 0.60.

E

Engineer’s Estimate	The term is frequently used to mean the estimate at time of bid (called the Contract Estimate in the Plans Preparation manual), but also used by some to mean any estimate done during the PE phase. <i>Note: See WSDOT Plans Prep Manual Division 8 Contract Estimate, 800.01.</i>
Escalation	The total annual rate of increase in cost of the work or its sub-elements. The escalation rate includes the effects of inflation <i>plus</i> market conditions and other similar factors. also see inflation. <i>John K. Hollmann & Larry R. Dysert. Escalation Estimation: Working With Economics Consultants. 2007 AACE International Transactions. Morgantown, WV: AACE International, p. EST.01.01. Accessed: http://www.c4ce.com/AACE_Escalation_Hollmann_Paper.pdf</i>
Estimate	A project estimate is actually comprised of two components: the base cost estimate component and the risk/uncertainty component. An estimate is more appropriately expressed not as a single number but as a range. A quantitative assessment of the likely amount or outcome. Usually applied to project costs, resources, effort, and durations and is usually preceded by a modifier (i.e. preliminary, conceptual, order-of-magnitude, etc.). An estimate is expressed as a range; it offers an indication of accuracy. (e.g. + x percent).
Estimate at Completion (EAC)	The expected total cost of a project when the defined scope of work will be completed.
Estimate to Complete (ETC)	The expected cost needed to complete all the remaining work for a... project.

G

Goal	the end toward which effort is directed: aim
Guaranteed Ride Home Program	A program providing an assured trip for commuters not able to use their normal carpool, vanpool, or bus commute mode because of personal emergencies or work
GSP	General Special Provisions,

H

Highway System Plan (HSP)	A WSDOT planning document that addresses the state highway system element of the Washington Transportation Plan (WTP). The HSP defines the service objectives, action strategies, and costs to maintain, operate, preserve, and improve the state highway system for 20 years. The HSP is the starting point for the state highway element of the CIPP and the state Highway Construction Program. It is periodically updated to reflect completed work and changing transportation needs, policies, and revenues. It compares highway needs to revenues, describes the “constrained” costs of the highway programs, and provides details of conceptual solutions and performance in the improvement program.
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I

ICE	Intersection Control Evaluation
Inflation	¹ A persistent tendency for prices and money wages to increase. Inflation is measured by the proportional changes over time in some appropriate price index...; ² an increase in the volume of money and credit relative to available goods and services resulting in a continuing rise in the general price level. <i>1A Dictionary of Economics. Oxford University Press, 2002. St. Martin's University</i> <i>2 Merriam-Webster/online</i>
Intelligent Transportation Systems (ITS)	An integrated system of advanced sensor, computer, electronics, and communication technologies and management strategies, used to increase the safety and efficiency of the surface transportation system.

M

MASH	Manual for Assessing Safety Hardware
Master Deliverables List (MDL)	A comprehensive listing of project elements intended as a starting point for the creation of work breakdown structures (WBS) for projects. The Master Deliverables List is organized in project phases to the deliverables level. http://wwwi.wsdot.wa.gov/projects/PDIS/MDL.htm
Mode	A particular form of travel (i.e., traveling by car, walking, bicycling, traveling by bus, traveling by carpool, traveling by train, etc.)

Monitoring	Continual checking, supervising, critically observing or determining the status in order to identify change from the performance level required or expected. <i>Source: ISO 31000, Risk management – Principles and guidelines</i>
Metropolitan Planning Organization (MPO)	The agency designated by the Governor (or governors in multistate areas) to administer the federally required transportation planning in a metropolitan area. An MPO must be in place in every urbanized area over 50,000 population. The MPO is responsible for the long-range plans and the transportation improvement program. The official name for an MPO may also be Council of Governments, Planning Association, Planning Authority, Regional or Area Planning Council, Regional or Area Planning Commission.

N

NEPA/SEPA	<p>National Environmental Policy Act - The Policy that requires assessment and publication of environmental impacts related to any federally funded project.</p> <p>State Environmental Policy Act – The Washington Legislature enacted the State Environmental Policy Act in 1971. Commonly called SEPA, the law helps state and local agencies identify environmental impacts likely result from projects and decisions such as:</p> <ul style="list-style-type: none"> • Issuing permits for private projects such as an office building, grocery store, or apartment complex. • Constructing public facilities like a new school, highway, or water pipeline. • Adopting regulations, policies, or plans such as a county or city comprehensive plan, critical area ordinance, or state water quality regulation.
Noise	The random, irregular, or unexplained component in a measurement process. Noise can be found in cross-sectional data as well as time series data.

O

Objectives	Specific, measurable statements related to the attainment of goals.
OEO	Office of Equal Opportunity
Opportunity	Uncertainty that can positively affect project objectives (positive event risk). Examples include strategies to reduce cost or durations, beneficial funding decisions, improved revenue projections etc.

P

PMBOK™	Project Management Body of Knowledge – a guide from the Project Management Institute.
PMI	Project Management Institute, Inc.
Parametric Estimating	An estimating technique that uses a statistical relationship between historical data and other variables (e.g. lane miles, square footage, etc.) to calculate an estimate for activity parameters such as scope, cost, budget, and duration. Accuracy is dependent on the sophistication and the underlying data built into the model. An example for the cost parameter is multiplying the planned quantity of work to be performed by the historical cost per unit to obtain the estimated cost.
Participation Matrix	A spreadsheet to plan the attendance and timing of workshop participants.

PDMSG	Project Delivery Method Selection Guidance (PDMSG) was developed to aid WSDOT staff in evaluating projects for the most appropriate Project Delivery Method (PDM) based on each project's attributes, opportunities and risks that result in the most cost effective and best value project delivery.
Project Schedule	Schedule as presented by the Project Team, corresponding to the estimate.
Project Team	The Team representing the particular project under consideration.
Project	"a <u>temporary</u> endeavor undertaken to create a <u>unique</u> product or service." Projects are distinct from "operations," which are usually ongoing and repetitive activities.
Project Manager	... any person assigned to lead a team toward completion of a project . A project manager applies specialized knowledge, skills, tools, and techniques in order to meet defined goals and customer expectations for a project .
Plans, Specifications, and Estimates (PS&E)	The project development activity that follows Project Definition and culminates in the completion of contract-ready documents and the engineer's cost estimate.

Q

Quality	The degree to which a set of inherent characteristics fulfills requirements.
Qualitative assessment	An assessment of risk relating to the qualities and subjective elements of the risk – those that cannot be quantified accurately. Qualitative techniques include the definition of risk, the recording of risk details and relationships, and the categorization and prioritization of risk relative to each other. <i>Source: PRAM Guide, 2004 APM Publishing</i>
Quality Assurance ("QA")	Ensuring we do the right things in the right way; setup processes to attend to each stage of project delivery. Refers to those actions, procedures, and methods to be employed at management levels, under the jurisdiction of the Project Engineer (or Quality Manager), to observe and ensure prudent quality control procedures are in place and are being carried out, and the desired results of quality professional services are being achieved in accordance with the Quality Management Plan.
Quality Control ("QC")	Systems established to maintain standards by testing samples of the output to ensure results meet expectations. Refers to those actions, procedures, and methods that are to be routinely employed at the production and administrative levels, under the jurisdiction of the Project Engineer, during the development of work products to produce the desired quality professional services.
Quality Verification ("QV")	Uses objective evidence to confirm requirements are met. Refers to those actions, procedures and methods employed at HQ Project Development, under the jurisdiction of the State Design Engineer or designee, to selectively review final products to ensure a Quality Management Plan was implemented, the appropriate project development process was followed, and was reflected in the final contract document. This action will also include targeted PS&E reviews at 90% on select projects based on current trends in the construction phase related to engineering errors.

R

Range	The difference between the upper and lower values of a set of numbers or results either measured absolutely or related to Confidence Levels.
Range Cost Estimate	A Cost Estimate that gives a range of costs, related to specific confidence levels.
Regional Transportation Planning Organization (RTPO)	A planning organization authorized by the Legislature in 1990 as part of the Growth Management Act. The RTPO is a voluntary organization with representatives from state and local governments that are responsible for coordinating transportation planning activities within a region.

Request for Proposal (RFP)	The document package issued by WSDOT requesting submittal of proposals for the project and providing information relevant to the preparation and submittal of proposals, including the instructions to proposers, contract documents, bidding procedures, and reference documents.
Request for Qualifications (RFQ)	The first phase is the qualifications phase. WSDOT issues a Request for Qualifications (RFQ). Interested design-build firms respond to the RFQ by submitting Statements of Qualification (SOQs).
Risk	The effect of uncertainty on objectives. <i>Source: ISO 31000, Risk management – Principles and guidelines</i>
Risk Identification	Process of identifying, characterizing and quantifying potential risk events.
Risk Management	Refers to the culture, processes, and structures that are directed toward effective management of risks –including potential opportunities and adverse effects. Risk Management Process – systematic application of management policies, processes, and procedures to the tasks of establish the context, identifying, analyzing, assessing, treating, monitoring, and communicating risk. <i>Source: Project Risk Management Guidelines Cooper, Grey, Raymond, Walker</i>
S	
Scope of Work	Defines the work and activities necessary to deliver a project. Establishes context and boundaries for the work.
T	
Threat	An event risk that has the potential to negatively impact project objectives.
Transportation System Management/Transportation Demand Management (TSM/TDM)	Actions that improve the operation and coordination of transportation services and facilities to make the most efficient use of the existing transportation system. Demand management strategies, such as ramp meters, are a type of TSM action.
U	
Urban Growth Area (UGA)	Urban Growth Area
V	
Validation	A process to confirm the reasonableness, accuracy and completeness of estimated costs and quantities.
Value Engineering (VE)	A systematic approach to identifying and removing unnecessary costs which do not contribute to a desired result by analyzing cost vs. function.
Variable Message Sign (VMS)	The fact of, or capacity for, varying in amount, magnitude or value. <i>Source: Oxford English Dictionary Online, 2010</i>
Variability, Variance	Inherent fluctuations due to random events that result in a range of potential values for a quantity.
	The fact of, or capacity for, varying in amount, magnitude or value. <i>Source: Oxford English Dictionary Online, 2010</i>
	Inherent fluctuations due to random events that result in a range of potential values for a quantity.

VECP	<p><i>Value Engineering Change Proposals</i> (VECP) are post-award value engineering proposals made by construction contractors during the course of construction under a value engineering clause in the contract. It is described in <u>23 CFR 627.3(g)</u> as "A construction contract change proposal submitted by the construction contractor based on a VECP provision in the contract. These proposals may improve the project's performance, value and/or quality, lower construction costs, or shorten the delivery time, while considering their impacts on the project's overall life-cycle cost and other applicable factors."</p> <p style="text-align: right;"><i>Source: FHWA</i></p>
VERA	Value Engineering Risk Assessment - a workshop where both the cost risk assessment and value engineering workshops are combined.
Y	
Year Of Expenditure Dollars (YOE)	Year Of Expenditure. The estimated year that money will be spent to complete project work elements. Typically the estimated YOE is calculated by inflating the estimate in current year dollars to the midpoint of activity.

Other sources

CREM Glossary <https://www.wsdot.wa.gov/publications/fulltext/CEVP/Glossary.pdf>

Design Manual Glossary <https://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/glossary.pdf>

WSDOT Glossary <https://www.wsdot.wa.gov/engineering-standards/manuals/glossary>